

Transitioning to Electric School Buses: Meeting New Brunswick's 2035 Goal

Purpose

This document outlines the challenges and opportunities in transitioning to electric school buses and presents key recommendations for achieving New Brunswick's 2035 school bus fleet transition target.

Issue Summary

The provincial government has committed to making New Brunswick's school bus fleet fully electric by 2035. However, without a clear plan, the provincial government risks missing this goal and losing out on significant environmental and economic benefits.

Background and Challenges

- Premier Susan Holt has committed to electrifying all government vehicle fleets, including school buses, by 2035. This goal aligns with the broader goal of ensuring all government buildings are carbon-neutral by the same year.
- The government also plans to update the Clean Air Act and Clean Water Act, reinforcing the right to clean air and water for all New Brunswick residents.
- The province has procured 21 electric school buses out of a total fleet of 1,254 buses, demonstrating initial progress but leaving significant ground to cover. (CCNBa, 2022)
- Prince Edward Island has piloted a program using at-home charging systems for school bus operators, offering potential insights for New Brunswick (CCNBb, 2022)
- British Columbia and Quebec have emerged as leaders in school bus electrification, providing a strong example of how a phased approach to procurement and infrastructure development can successfully achieve provincial electrification goals. (Canadian Electric School Bus Alliance, 2024)

Recommendations

- 1. Prioritize developing a phased procurement plan.
- **2.** Provide funding to:
 - Support the switch to electric school buses.
 - Plan and build charging infrastructure.
- **3.** Work with school districts, bus operators, and parents to build support and ensure everyone understands the transition.
- **4.** Collaborate with N.B. Power to prepare the electrical grid for increased demand and explore new technologies like vehicle-to-grid (V2G) charging to make the grid more flexible.

The Conservation Council of New Brunswick has over five years of expertise on this file and is ready to support the government in this transition.

Significance and Impact

- Federal funding for zero-emission transit initiatives will likely diminish in the coming year, making it essential for the provincial government to establish its own Zero-Emission Transit Fund to prioritize and accelerate this transition.
- Bulk purchasing opportunities with other provinces provide a cost-effective approach to procuring electric school buses, which could help to reduce New Brunswick's financial barriers.
- Transitioning to electric school buses will significantly reduce greenhouse gas emissions and improve air quality, supporting the province's climate goals while delivering substantial environmental and public health benefits (CCNBa, 2022)

Analysis

Impact on Stakeholders and Rightsholders

- **Students:** Transitioning to electric school buses will significantly improve air quality, benefiting student health by reducing exposure to diesel exhaust, which is linked to respiratory issues and other health risks (CCNB, 2024)
- **Bus Operators and Maintenance Staff:** Transitioning to electric buses requires new training programs for operators and maintenance staff to ensure safe operation and efficient servicing of the new fleet.

- **The Public:** Misinformation about the safety and reliability of electric school buses may undermine public trust in electrification, highlighting a need for clear communication and awareness campaigns.
- **Utility:** NB Power must ensure grid readiness to manage the increased electrical demand from bus charging infrastructure, requiring strategic coordination and investment. Technologies such as V2G charging can also provide crucial grid backup.

Risks and Opportunities

Risks:

- At the current procurement rate of 100 buses per year, the province will not meet the 2035 target unless it accelerates its purchases to 124 electric buses annually.
- Failure to meet the electrification goals risks reputational harm and missed opportunities for improved public health and environmental outcomes.

Opportunities:

- Eliminating diesel emissions improved health outcomes for children, who spend an average of 2,405 hours on buses over their school years.
- Workforce training programs like those at NBCC should be developed to create a skilled labour pool capable of maintaining and servicing electric school buses.

Current Status

- Nova Scotia is currently leading a feasibility study on school bus electrification in the Atlantic provinces, which was conducted on behalf of the Council of Atlantic Ministers of Education and Training (CAMET) and remains unavailable to the public (Government of Canada, 2023)
- Numerous pilot projects on V2G technology have been conducted in Atlantic Canada, with Nova Scotia currently pursuing a pilot project using an electric school bus.
- The Conservation Council has facilitated opportunities for New Brunswick school bus operators to engage with counterparts in other provinces and is prepared to continue this role to foster collaboration and knowledge-sharing.

Key Contacts

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